



## Finnglass Lintu-Laser™

Bird-friendly Design meets Aesthetic Demands





## The Art of Bird Protection

Finnglass Lintu-Laser™ bird-friendly glass meets the highest aesthetic demands. It enhances the elegance of matt etched or sandblasted surfaces, while protecting billions of our little feathered friends.

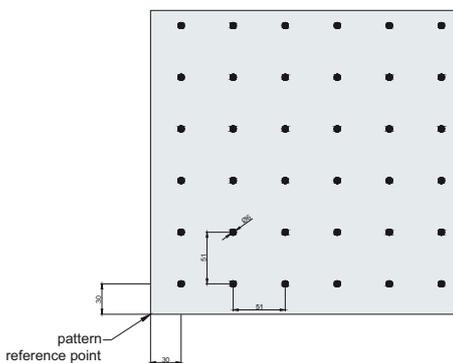
## Why Bird Protection Glass?

Bird protection glass is becoming increasingly important in modern architecture. Unfortunately, songbirds in particular do not recognize the dangers posed to them by transparent and reflective glass surfaces. Green plants behind large panes of glass, trees and shrubs that are reflected by facades or the sunlight shining through a glass balustrade are not perceived as an imminent danger, but as part of their natural habitat. Bird protection glass such as Finnglass Lintu-Laser™ and LaserBird effectively prevent collisions. How? Patterns like dots, squares or other designs, that are visible to birds, are applied onto the glass surface in a certain size and at certain intervals.

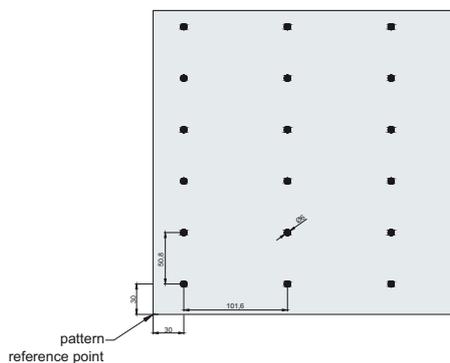
## Keeping Birds Safe Dot by Dot

What makes Lintu-Laser™ glass so very special? The patterns are applied in a laser ablation process. Meaning, they are not screen printed, but are created by lasering ultra-fine structures into the glass surface, adding an aesthetic appeal to modern buildings. To achieve the best bird protection the laser pattern is applied to surface 1. Currently three standard patterns are available. Customized designs are available on request.

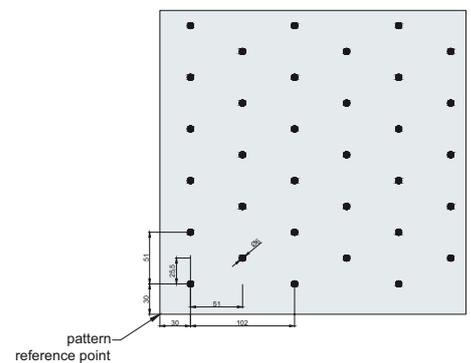
## Available Pattern Types



FGL 001-LL  
Orthogonal  
∅ dots 6 mm  
Surface coverage: 1,13 %



FGL 002-LL  
Pseudo-Orthogonal  
∅ dots 6 mm  
Surface coverage: 0,57 %



FGL 003-LL  
Hexagonal  
∅ dots 6 mm  
Surface coverage: 1,10 %





### Available Options

The Lintu-Laser™ pattern is applied - either air side or tin side - to annealed float glass before the panes are further processed into single or laminated safety glass. Lintu-Laser™ bird protection glass perfectly integrates with individual solutions for energy efficiency, solar control, safety and sound insulation. Monolithic heat-treated glass is possible, also in combination with temperable coatings and cut size coatings. Further processing into curved glass is possible on request.

Max. Production Size	Available Glass Types	Available Interlayers
2300 mm (90") x 5300 mm (208")	Heat Strengthened	
	Toughened and Heat-Soak-Tested	
	Laminated Heat Strengthened	PVB, SGP, SGX, other interlayers on request
	Laminated Toughened and Heat-Soak-Tested	
	Insulating Glass	

### Quality Tests, Standards and Certificates

Finnglass Lintu-Laser™ bird-friendly glasses meet all relevant standards.

- Gloss value requirement of  $\leq 6$  (ASTM D523)
- "Guidelines for Assessment of the Visual Quality of Glass in Buildings" and Guidelines for Assessment of the Visual Quality of Enamelled Glass"
- Successfully evaluated by the American Bird Conservancy



### Our partners in Bird Protection



## We value Quality and Thrive on Challenge

Finnglass Oy, located in Alavus, Finland, provides customized glazing solutions for architectural applications and demanding needs.

Around the globe our partners in architecture and façade construction value our knowledge and expertise. We specialize in heated glass, multiple layer laminated glass, signal glass, electrochromic glass, heat treated glass and high-quality insulating glass.

Finnglass designs and manufactures both structural and non-structural glazing solutions for tough climates, creative architectural designs and demanding requirements in safety, security and comfort.



## Want to know more about Finnglass and Bird Protection Solutions?

### International Enquiries

Mikko Filmer

Mobile: +49.163.8090762

Phone: +358.400.882.114

email: [mikko.filmer@finnglass.com](mailto:mikko.filmer@finnglass.com)

### National Enquiries

Ari Uusikartano

Phone: +358.407.563.251

email:

[ari.uusikartano@finnglass.com](mailto:ari.uusikartano@finnglass.com)

We are glad to help.



Finnglass Oy • Asematie 46 • 63400 Alavus

[www.finnglass.com](http://www.finnglass.com)